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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,475

10/24/2005

Nir Padan

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27623

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05/30/2008

OHLANDT, GREELEY, RUGGIERO & PERLE, LLP
ONE LANDMARK SQUARE, 10TH FLOOR
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EXAMINER

TRAN, DALENA

ART UNIT

PAPER NUMBER

3664

MAIL DATE

DELIVERY MODE

05/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,475	PADAN, NIR	
	Examiner	Art Unit	
	Dalena Tran	3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/3/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
10537475	10/24/05	PADAN, NIR	0002311USU/2279

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EXAMINER

Dalena Tran

ART UNIT	PAPER
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3664	20080524
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DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents

DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-32 are pending.

The prior art submitted on 6/3/05 has been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 8, and 24-26, are rejected under 35 U.S.C. 102(e) as being anticipated by Stone (6763325).

As per claim 1, Stone discloses a system for optimizing the performance of an operating crew of at least one aerial vehicle during at least one close-in air combat by providing in real-time automatic situation assessment and by generating dynamically at least one indication and by communicating the at least one indication as guidance to the operating crew of the at least one aerial vehicle, the system comprising the elements of an assessment information database implemented on at least one computer; and an assessment and guidance software application implemented on the at least one computer (see columns 8-9, lines 20-62; columns 11-12, lines 11-29; columns 15-16, lines 62-18; and columns 17-18, lines 45-12).

As per claim 8, Stone discloses the assessment and guidance application comprises the elements of: an application control module to initiate, to activate, to control and to execute the application; a database interface module to allow for access the database and to obtain the requested records from the database (see column 5, lines 14-32); a parameters processor module to handle the operational parameters of the system (see column 5, lines 33-67); an information-marshalling module to organize the information received from various sources (see columns 6-7, lines 48-17); a situation analyzer and mapping module to analyze the at least one current situation concerning the at least one aerial engagement; and a response assessment and response selector module to generate at least one response associated with the at least one current situation and the at least one potential situation (see column 7, lines 30-67).

As per claim 24, Stone discloses in a virtual aerial combat environment a system for optimizing the performance of an operator of at least one virtual aerial vehicle during at least one virtual aerial engagement by providing automatic situation assessment and by generating dynamically at least one maneuver or energy instruction and by communicating the at least one maneuver or energy instruction as maneuver or energy guidance to the operator of the at least one virtual aerial vehicle, the system comprising the elements of: an assessment information database installed within at least one air-combat simulating software environment associated with the at least one virtual aerial vehicle (see columns 13-15, lines 65-7); and an assessment and guidance software application installed within at least one air combat simulation software environment associated with at least one virtual aerial vehicle (see the abstract; columns 12-13, lines 31-25; and column 18, lines 16-64).

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As per claim 25, Stone discloses the virtual air combat environment is a flight simulator (see the abstract).

As per claim 26, Stone discloses the virtual air combat environment is a computer game (see column 3, lines 26-33).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-7, 10-23, and 30-32, are rejected under 35 U.S.C.103(a) as being unpatentable over Stone (6763325) in view of Tzidon et al. (5807109).

As per claim 2, Stone does not disclose a set of formulas for optimal relative maneuvering file. However, Tzidon et al. disclose the assessment information database comprises the elements of: an aircraft characteristics file comprising the aircraft flight envelope, the aircraft maneuver-energy graphs, models and limitations, and the aircraft weapon system characteristics (see columns 5-6, lines 40-36; and column 7, lines 5-47); a set of formulas for optimal relative maneuvering file; and an external information file (see columns 6-7, lines 37-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Stone by combining a set of formulas for optimal relative maneuvering file to simulate the aircraft performance.

As per claim 3, Stone does not disclose ground station. However, Tzidon et al. disclose the elements of at least one computer installed on the at least one aerial vehicle or on at least one ground station to receive, store, process and forward data specific for the optimization of the conduct of the at least one aerial engagement (see column 3, lines 25-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Stone by combining ground station for communicating aircraft position information.

As per claim 4, Tzidon et al. disclose at least one off-board computer installed in at least one ground station to provide additional data specific for the optimization of the conduct of the at least one close-in combat engagement (see column 4, lines 4-32).

As per claim 5, Tzidon et al. disclose at least one sensor device installed on the at least one aerial vehicle to dynamically monitor the physical variables associated with the participant elements of the at least one close-in air combat (see column 3, lines 48-60).

As per claims 6-7, Tzidon et al. disclose at least one sensor device installed in the at least one ground station to monitor physical variables associated with the participant elements of the at least one close-in air combat, and at least one data communication network linking the at least one aerial vehicle and the at least one ground station to allow for the transmission or reception of the information associated with the at least one close-in air combat (see column 4, lines 5-32).

As per claim 10, Tzidon et al. disclose a communication device to link the at least one computer to remote information sources via the at least one data communication network; a processor device to execute the required sequence of software instructions embedded in the assessment and guidance application (see column 4, lines 4-32); a digital signal processor device

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to process digitally formatted information from the at least one sensor device and from the at least one data communication network; and a data bus device to provide at least one data delivery channel among the diverse devices installed in the at least one on-board device (see columns 5-6, lines 40-36).

As per claim 11, Tzidon et al. disclose a sound synthesizing device to generate audio instructions to be communicated to the operating crew of the least one aerial vehicle (see column 3, lines 48-60).

As per claim 12, Tzidon et al. disclose an operating system to supervise and control the execution of the programs installed in the at least one computer; a data link handler component to initiate transmission of outgoing information and to receive incoming information from the at least one data communication network (see column 4, lines 4-32); an input/output handler component to supervise and control the peripheral devices linked to the at least one computer; and a database handler component to initiate access to the assessment information (see columns 6-7, lines 37-4).

As per claims 13-14, Stone does not disclose global positioning system device. However, Tzidon et al. disclose the sensor device is an instrument providing an indication as to the parameters of flight, and the sensor device is a global positioning system device (see columns 3-4, lines 61-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Stone by combining global positioning system device for measuring aircraft performance data.

As per claims 15-16, Tzidon et al. disclose the at least one aerial vehicle is a manned, and unmanned combat aerial vehicle combat aircraft (see the abstract).

As per claims 17-18, Tzidon et al. disclose the operating crew is a fighter pilot, and the operating crew is a remotely located operator (see column 4, lines 4-32).

As per claims 19-22, Tzidon et al. disclose the computer is an onboard computer located within the aerial vehicle, the element of a visual display device to communicate the at least one instruction to the operating crew in a visual manner, the element of an audio output device to communicate the at least one instruction to the operating crew in an aerial manner, and the element of a manual input device to communicate control information from the operating crew to the system (see columns 4-5, lines 33-8).

As per claim 23, Tzidon et al. disclose the at least one close-in air combat is a within visual range air combat (see the abstract).

As per claim 30, Stone discloses an apparatus for optimizing the performance of an operating crew of at least one aerial vehicle during at least one close-in air combat by providing in real-time automatic situation assessment, the apparatus comprising: a device for: obtaining air combat engagement and energy information required for the analysis of the air combat situation (see column 7, lines 39-67); obtaining aircraft characteristics information required for the analysis of the air combat situation (see columns 6-7, lines 48-17); an analysis device for: analyzing the situation between the at least two aerial vehicles and mapping the analyzed situation in relation to the previously analyzed situations between at least two aerial vehicles (see column 3, lines 34-49); generating at least one future potential air combat situation based on the

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at least one mapped air combat situation (see columns 3-4, lines 50-46); based on the analysis determine at least one optimal state of the at least one aerial vehicle based on the at least one optimal air combat situation between the at least two aerial vehicles; and generating at least one recommendation based on the at least one optimal future potential air combat situation between the at least two aerial vehicles (see columns 8-9, lines 21-29). Stone does not disclose obtaining aircraft weapon. However, Tzidon et al. disclose obtaining aircraft weapon system characteristics information; and obtaining remotely sensor-specific information (see column 5, lines 9-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Stone by combining obtaining aircraft weapon for aircraft performance simulation.

As per claim 31, Stone discloses a transforming device for transforming the at least one recommendation into at least one guidance indicator (see columns 8-9, lines 21-29); and a display device for displaying the at least one guidance indicator to the operating crew of the at last one aerial vehicle to enable the application of the associated commands to the controls of the aerial vehicle (see column 8, lines 1-19).

As per claim 32, Stone discloses a transforming device for transforming the at least one recommendation into at least one direct input commands to be automatically applied to the suitable controls of the at last one aerial vehicle (see columns 6-7, lines 48-18).

6. Claims 9, and 27-29, are rejected under 35 U.S.C.103(a) as being unpatentable over Stone (6763325) in view of Ben-Yair et al. (5587904).

As per claim 9, Stone discloses a guidance generator module to convert the at least one selected response to at least one guidance instruction; a guidance display module to communicate the at least one guidance instruction to the operating crew (see columns 17-18, lines 45-13). Stone does not disclose a future situations projector. However, Tzidon et al. disclose a future situations projector and mapping module to create at least one potential future situation and associating the at least one future situation with the at least one current situation (see columns 9-10, lines 45-15); a post-combat debriefing module; a history generator and history replay module (see column 10, lines 16-56; and columns 1-2, lines 50-20); an aircraft status and system status monitor; a learning and adaptation module (see columns 5-6, lines 50-48); an air combat formulas or algorithms or a set of rules module or algorithm; a testing/maintenance/initialization module (see columns 11-12, lines 55-21); and a user interface module (see column 11, lines 24-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Stone by combining a future situations projector for predicting aircraft position for simulator aircraft performance.

Claim 27, is a method claim corresponding to system claims 1-2 and 9 above. Therefore, it is rejected for the same rationales set forth as above.

Claims 28-29 are method claims corresponding to system claims 11-12 above. Therefore, they are rejected for the same rationales set forth as above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

. Gold et al. (6012676)

. Kuntman et al. (6703945)

. Langston (6739556)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-W (in a first week of a bi-week), and T-R (in a second week of bi-week) from 7:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi H. Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dalena Tran/
Primary Examiner, Art Unit 3664
May 25, 2008

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